

Amendment to the Drawings:

In response to the Examiner's objection to the drawings, please find attached hereto a Replacement Sheet and an Annotated Drawing Sheet for Figure 1 which adds the caption "Prior Art" to Figure 1.

Remarks

Claims 1 to 36 are pending in the application, with Claims 1, 13, 21, 24, 27, 32, 34, 35 and 36 being the independent claims herein. Reconsideration and further examination are respectfully requested.

As an initial matter, Figure 1 was objected to in the Office Action because it did not include the caption "Prior Art". Applicants have attached hereto a Replacement Sheet and an Annotated Drawing Sheet which add the caption "Prior Art" to Figure 1. Accordingly, entry of the revised Figure 1, and reconsideration and withdrawal of the objection thereto, are respectfully requested.

Turning to the art rejections, Claims 1 to 36 were rejected under 35 U.S.C. § 102(b) individually over each of U.S. Patent No. 6,191,735 (Schineller), U.S. Patent No. 4,675,682 (Adam), and U.S. Patent No. 4,912,478 (Daniel). Reconsideration and withdrawal of these claim rejections are respectfully requested.

Initially, Applicants respectfully submit that the rejections as set forth in the office action are improper and should be withdrawn. In particular, the rejections listed in the Office Action are allegedly against Claims 1 to 36, however only the elements of independent Claim 1 are discussed with respect to each of the applied references. None of the other independent claims (13, 21, 24, 27, 32, 34, 35 and 36) are discussed with respect to the applied references. Accordingly, the Office Action is only seen to set forth rejections of Claim 1, and arguably also its dependent Claims 2 to 12, with respect to the applied references, since there is no discussion of the other pending independent claims, and their dependent claims, in the Office Action. See M.P.E.P. § 707.07(d); and 37 C.F.R. § 1.104(c). Based on the foregoing, Applicants request (1) withdrawal of the stated rejection of Claims 13 to 36; or in the alternative, (2) issuance of a revised non-final Office Action which addresses the rejection of each of the remaining independent claims with particularity.

In general, the present invention concerns a system for processing signals by taking input signals and then phase-shifting and time-delaying the signals, which are then sampled, and switched between for measurement of information associated with the processed signals.

Turning to specific claim language, independent Claim 1 is directed to a system for processing signals, the system including a first phase shifter configured to receive or generate a first signal, a second phase shifter configured to receive or generate a second signal, a first variable time delay system coupled to the first phase shifter and configured to generate or receive a third signal, and a second variable time delay system coupled to the second phase shifter and configured to generate or receive a fourth signal. The system further includes a first signal processing system coupled to the first variable time delay system and the second variable time delay system and configured to generate or receive a fifth signal, a sampling system configured to sample at least the third signal and the fourth signal and generate at least a sixth signal and a seventh signal respectively, a switching system configured to receive the at least a sixth signal and a seventh signal and output an eighth signal and a ninth signal, the eighth signal being the same as one of the at least a sixth signal and a seventh signal, the ninth signal being the same as one of the at least a sixth signal and a seventh signal, and a measuring system configured to receive the eighth signal and the ninth signal and process at least information associated with the eighth signal and the ninth signal.

Turning to the art rejections, Schineller is seen to be directed to a phase shifting microwave circuit which includes components that time-delay and phase-shift signals. However, contrary to the allegation set forth in the Office Action, Schineller is not seen to disclose or suggest the system of independent Claim 1. In particular, the Office Action does not identify any component or aspect of Schineller which allegedly discloses or suggests the first signal processing system of independent Claim 1 which is coupled to the first variable time delay system and the second variable time delay

system and configured to generate or receive a fifth signal. Nor does the Office Action identify any component or aspect of Schineller which allegedly discloses or suggests the sampling system of independent Claim 1 which is configured to sample at least the third signal and the fourth signal and generate at least a sixth signal and a seventh signal respectively.

The Office Action alleges that divider 20 of Schineller teaches the switching system of independent Claim 1. Applicants submit that this is clearly not the case. As seen in Figure 1 of Schineller, divider 20 is a signal divider which *outputs* divided signals *to* the time delays 30 to 60, and then the signals from time delays 30 to 60 are *output to* combiner/dividers 72 to 102, respectively, for input to MMICs 110 to 125. On the contrary, the switching system of independent Claim 1 receives the sixth signal and the seventh signal, and outputs an eighth signal and a ninth signal, wherein the eighth signal is the same as one of the sixth and seventh signals, and wherein the ninth signal is the same as one of the sixth and seventh signals. The sixth and seventh signal that are received by the switching system in Claim 1 are from the sampling of the third and fourth signals which are in turn output from the first and second variable time delay systems. Therefore, divider 20 of Schineller is simply seen to divide signals for *output* to the time delays. However, the switching system of independent Claim 1 is a not a divider but is a switch that receives as *input* signals from the first and second time delay system. Accordingly, divider 20 is not seen to perform the same function, or to be disposed in the same circuit location, as the switching system of independent Claim 1.

The Office Action alleges that antenna element 15 of Schineller teaches the measuring system of independent Claim 1 which is configured to receive the eighth signal and the ninth signal and process at least information associated with the eighth signal and the ninth signal. As seen in Figure 1 and 1A of Schineller, and as described in Schineller at columns 3 and 4, antenna element

15 provides the *input signal* to the signal processing system of Schineller for time-delay and phase-shifting. In contrast, the measuring system of independent Claim 1 does not provide an input signal but instead measures the output signals (eighth and ninth signals) that have been time-delayed and/or phase-shifted from the signal processing system of Claim 1. Accordingly, antenna element 15 is not seen to perform the same function, or to be disposed in the same circuit location, as the measuring system of independent Claim 1.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” M.P.E.P. § 2131, *citing Verdegaa Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Based on the foregoing discussion, Applicant submits that Schineller is not seen in any way to anticipate the combination of elements of independent Claim 1.

Similarly, Adam is not seen to teach or suggest the combination of features of independent Claim 1. In particular, Adam is seen to be directed to a magnetostatic delay line which can be used in an antenna system as shown in Figure 7 of Adams. In this regard, delays 706 and 708 and phase shifters 710 are shown in Figure 7 of Adams. However, nowhere is Adams seen to teach, nor does the Office Action reference any aspect of Adams that allegedly teaches, the first signal processing system, the sampling system, or the switching system of independent Claim 1. Lastly, the Office Action alleges that input line 700 of Adams teaches the measuring system of independent Claim 1. As Figure 7 and Column 11 of Adams clearly set forth, input 700 is the input signal to delays 706 and 708. In contrast, the measuring system of independent Claim 1 does not provide an input signal but instead measures the output signals (eighth and ninth signals) that have been time-delayed and/or phase-shifted from the signal processing system of Claim 1. Accordingly, input 700 of

Adams is not seen to perform the same function, or to be disposed in the same circuit location, as the measuring system of independent Claim 1.

Based on the foregoing discussion, Applicant submits that Adams is not seen in any way to anticipate the combination of elements of independent Claim 1.

Like Shineller and Adams, Daniel is not seen to teach or suggest the combination of features of independent Claim 1. In particular, Daniel is seen to be directed to a phased array radar antenna which utilizes signal time delay magnetostatic spin wave devices. In this regard, delays 5 and phase shifters 40 are shown in Figure 2 of Daniel. However, nowhere is Daniel seen to teach, nor does the Office Action reference any aspect of Daniel that allegedly teaches, the first signal processing system, the sampling system, or the switching system of independent Claim 1. Lastly, the Office Action alleges that variable oscillator 13 of Daniel teaches the measuring system of independent Claim 1. As Figure 2 and Column 3 of Daniel clearly set forth, variable oscillator 13 provides the input signal to delays 5. In contrast, the measuring system of independent Claim 1 does not provide an input signal but instead measures the output signals (eighth and ninth signals) that have been time-delayed and/or phase-shifted from the signal processing system of Claim 1. Accordingly, variable oscillator 13 of Daniel is not seen to perform the same function, or to be disposed in the same circuit location, as the measuring system of independent Claim 1.

Based on the foregoing discussion, Applicant submits that Daniel is not seen in any way to anticipate the combination of elements of independent Claim 1.

Even if the Office Action were to set forth specific rejections of the other independent claims in the application over Shineller, Adams and Daniel, which Applicants submit it does not, such references are not seen to anticipate those claims for at least the same reasons as those

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discussed above. Accordingly, all of pending independent Claims 1, 13, 21, 24, 27, 32, 34, 35 and 36 are believed to be allowable over the applied references.

The other claims currently under consideration in the application are dependent from the independent claims discussed above and therefore are believed to be allowable over the applied reference for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing remarks, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Orange County office by telephone at (949) 851-0633. All correspondence should be directed to our address given below.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Dennis A. Duchene

Registration No. 40,595

18191 Von Karman Ave., Suite 400
Irvine, CA 92612-7107
Phone: 949.851.0633 DAD:wj
Facsimile: 949.851.9348
Date: January 13, 2005

**Please recognize our Customer No. 31824
as our correspondence address.**

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Annotated Marked-Up Drawing

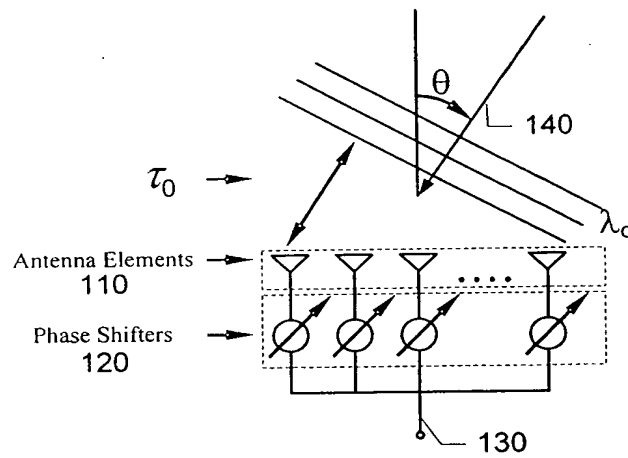


Fig. 1 (Prior Art)